

GenCore version 5.1.6
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OM nucleic - protein search, using frame_plus_n2p model

Run on: March 9, 2004, 14:52:37 ; Search time 1 Seconds

(without alignments)
3.562 Million cell updates/sec

Title: ~~US-09-866-866A-9~~
Perfect score: 4813
Sequence: 1 tttaggaagcaccgtgcac.....cattaagctatagaactt 2719

Scoring table:

BLOSUM62
Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 1 seqs, 655 residues

Total number of hits satisfying chosen parameters: 2

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Command line parameters:

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-NOM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000 -NCPU=6 -NO_XLPHY
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-YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : 6313277.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3331	69.2	655	US-09-245-808-1	Sequence 1, Appli
2	52.5	1.1	655	US-09-245-808-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-09-245-808-1
Sequence: 1
Patent No. 6313277
GENERAL INFORMATION:
APPLICANT: Doyle, L. Austin
APPLICANT: Abiruzo, Lyne V.
APPLICANT: Ross, Douglas D.
TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
TITLE OF INVENTION: encodes it
FILE REFERENCE: Ross UMB conversion
CURRENT APPLICATION NUMBER: US/09/245,808
CURRENT FILING DATE: 1999-02-05
EARLIER APPLICATION NUMBER: 60/073763
EARLIER FILING DATE: 1998-02-05

; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 1
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Human MCF-7/AdrVp cells
US-09-245-808-1

Alignment Scores:

Pred. No.:	Score:	Length:	Matches:	Conservative:	Mismatches:	Indels:	Gaps:
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Percent Similarity:	99.54%						
Best Local Similarity:	99.39%						
Query Match:	69.21%						

US-09-866-866A-9 (1-2719) x US-09-245-808-1 (1-655)

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DB	1	MetserSerSerAenValGluValPheIleProValSerGlnGlyAenThrAenGlyPhe	20
QY	265	CCCGGACAGATTCCATGACCTTAAGGACATTCTGAGAGAGCTGTGTTAATTCAT	324
DB	21	ProIatThrAlaSerAenAspLeuValaPheThrGlnGlyAlaValLeuSerPheHis	40
QY	325	AACATCTGCTATCCAGTAAATGTAAGTGGCTTTCTTACCTTGCGAAACGATTGAG	384
DB	41	AsnIleCytyrAryGValLysLeuLysSerGlyPheLeuProCyAryGValProValGlu	60
QY	385	AAAGAAATATTATGAATATCAATGATGATCAAGAACTGCTCAACGCTTCCTGGA	444
DB	61	LysGluIleLeuSerAenIleAsnGlyIleMetLysProGlyLeuAenAlaIleLeuGly	80
QY	445	CCACAGGTGAGAGCAATCTTCCTTATTAGATGCTTATGCTGCAAGAGAAATCCAACT	504
DB	81	ProThrGlyGlyGlyLysSerSerLeuLeuAspValLeuAlaIleAryGValAspProSer	100
QY	505	GGATTATCTGAGATGTTCTGATTAATGAGACCGGACCTGCCAATTTCAATGTAT	564
DB	101	GlyLeuSerGlyAspValLeuIleAsnGlyAlaProAryProAlaAsnPhelLysCysAsn	120
QY	565	TACGTTACGTGCTCAAGATGATGATGTTGATGGGCACTCGAGGTGAGAGAAACTA	624
DB	121	SerGlyTyValValGlnAspAspValValMetGlyThrLeuThrValAryGlnLysLeu	140
QY	625	CAGTCTCAGACAGCTCTTCGGCTTCAACACTATGACGAATCAATGAAAGAAACGAG	684
DB	141	GlnPheSerAlaAlaLeuAryLeuAlaThrThrMetThrAenHisGlnLysAsnGlyArg	160
QY	685	ATTAACAGGTCATGAAGAGTTAGTCTGATTAAGTGGACACTCCAGGTTGAACT	744
DB	161	IleAenAryValIleGlnGlnLeuGlyLeuAspLysValAlaAspSerLysValGlyThr	180
QY	745	CAGTTATCCGTGTGTGTCTGAGAGAGAAAGAAAGAAAGAAAGAAAGAAAGAAAG	804
DB	181	GlnPheIleAryGlyValSerGlyGlyLysArgLysArgThrSerIleGlyMetGlnLeu	200
QY	805	ATCACTGATCCCTTCATCTGCTTCCTGATGAGCTTCAACGCTTGTGACTCAAGACA	864
DB	201	IleThrAspProSerIleLeuPheLeuAspGlnProThrGlyLeuAspSerSerThr	220
QY	865	GCAATGCTGCTCTTGTCTCTGAAAGATGTCTTAAGCAGGAGCAACATCACTCTTC	924
DB	221	AlaSerAlaValLeuLeuLeuLeuLysArgMetSerLysGlnGlyAryThrIleLeuPhe	240
QY	925	TCCATTCATGACCTTCGATATTCATCTTCAAGTTGTTGATAGCTTCACTTATGGCC	984
DB	241	SerIleHisGlnProAryGlySerIlePheLysLeuPheAspSerLeuThrLeuAla	260
QY	985	TGAGGAAGACTATGTTCCAGCGGCTGCTCAGAGAGGCTTGAGATCTTGATCAATCAGCT	1044
DB	261	SerGlyAryLeuMetPheHisGlyProAlaGlnGlnAlaLeuGlyTyPheGlnSerAla	280

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QY 1045 GGTATTCATGCTGAGGCGCTTATATACCTGTGACACTTCTTCTTGAGACATCATTAATGGA 1104
DB 281 G|Y|T|R|H|S|C|Y|S|G|U|A|L|A|T|Y|R|A|S|N|S|P|R|O|A|A|S|P|H|E|L|E|U|S|I|L|E|A|S|N|G|Y| 300
QY 1105 GATTTCACCTGCTGGTGGCATTTAAACGAGAGAGACCTTAAAGCAGACAGATCATGAG 1164
DB 301 A|P|S|E|T|R|A|A|V|A|L|A|L|E|U|S|N|R|G|I|U|G|I|U|A|S|P|H|E|U|S|A|A|T|H|G|I|U|I|L|E|G|I|U| 320
QY 1165 CCTTCCAGACGAGATTAAGCCTCATAGAAAATTTAGCGAGATTATGACTCTCC 1224
DB 321 P|R|O|S|E|R|Y|S|G|I|U|A|S|P|H|E|U|L|E|G|I|U|S|L|E|U|A|I|G|I|U|I|L|E|T|Y|R|V|A|L|A|S|S|E|R| 340
QY 1225 TTCTACAAAGAGACAAAGCTGAATTATCATCACTTTCCGGGGGTGAGAAAGAGAG 1284
DB 341 P|H|E|T|Y|R|Y|G|I|U|T|H|R|Y|S|A|I|G|I|U|L|E|U|H|S|E|R|G|I|U|G|I|U|S|L|E|U|S|Y|S| 360
QY 1285 ATCACAAGTTCAGAGAGATCAGACCCACTCTCTGTGCATCACTAGATGGGT 1344
DB 361 I|L|E|T|R|V|A|L|P|H|E|Y|S|G|I|U|L|E|S|E|R|Y|R|T|H|R|S|E|R|P|H|E|S|G|I|U|L|E|U|R|G|T|R|V|A| 380
QY 1345 TCCAAAGCTTCATTCAAAACCTTGCGGTATCCCGAGGCTCTATAGCTCAGATCATT 1404
DB 381 S|E|R|Y|S|A|S|E|R|P|H|E|Y|S|A|S|N|E|U|E|U|G|I|A|S|N|P|R|O|G|I|N|A|S|E|R|I|L|E|A|G|I|N|L|E| 400
QY 1405 GTCAACAGTGTACTGGGACTGGTTATAGGTGCATTACTTTGGGCTAAAAATGATTCT 1464
DB 401 V|A|I|T|R|V|A|L|V|A|L|E|U|L|Y|E|U|V|A|I|L|E|G|I|A|I|L|E|T|Y|R|P|H|E|G|I|U|L|E|U|S|A|S|P|S|E|R| 420
QY 1465 ACTGGAATCCAGAACGAGCTGGGTCTCTCTCTCTGACGACCAACAGGTTTCAGC 1524
DB 421 T|H|G|Y|I|L|E|G|I|A|S|N|R|G|I|A|G|I|U|L|E|U|P|H|E|L|E|U|T|H|R|A|S|G|I|N|S|H|E|S|E|R| 440
QY 1525 AGTGTTCAGCGGTGACACTTGTGTGTAGAGAGAACTCTTCATACATGAATACATC 1584
DB 441 S|E|R|V|A|S|E|R|A|L|A|L|E|U|L|E|U|P|H|E|V|A|I|G|I|U|S|L|E|U|P|H|E|I|S|G|I|U|Y|R|I|L|E| 460
QY 1585 AGCGATTAATACAGAGTGTCACTTATTTCTTGGAACCTGTTATCTGATTATTAACC 1644
DB 461 S|E|R|G|I|Y|R|T|Y|R|A|G|I|A|S|E|R|S|E|R|Y|R|P|H|E|U|G|I|U|S|L|E|U|S|E|R|A|S|P|H|E|U|R|O| 480
QY 1645 ATGAGATGTTACCAAGATTAATTATTTACCTGTATAGTGTACTTCATGTTAGATTGAG 1704
DB 481 M|E|T|H|T|R|E|U|P|R|O|S|E|R|I|L|E|P|H|E|T|R|C|Y|S|I|L|E|V|A|I|Y|R|P|H|E|U|L|E|U|S| 500
QY 1705 CCAAGAGCAGATCCCTTCTTCGTATGATGTTTACCTTATGATGGTCTTATCAGCC 1764
DB 501 P|R|O|Y|S|A|L|A|S|P|A|L|P|H|E|P|H|E|V|A|I|W|E|T|P|H|E|T|R|E|U|W|E|T|V|A|L|A|T|Y|R|S|E|R|A| 520
QY 1765 AGTTCATGAGCAGTGGCCTATGACAGAGCTCAGAGTGGTTCCTGTGACCACTTCTC 1824
DB 521 S|E|R|S|E|R|M|E|C|H|A|L|E|U|A|I|L|E|A|I|A|G|I|U|S|E|R|V|A|I|S|E|R|V|A|L|A|H|R|E|U|E|U| 540
QY 1825 ATGACCATCTGTTTGTGTTATGATGATTTTTCAGGCTGTGTGTCATCTCAACAC 1884
DB 541 M|E|T|H|T|R|E|C|Y|S|P|H|E|V|A|L|P|H|E|W|E|T|I|L|E|P|H|E|S|E|R|G|I|U|L|E|U|V|A|L|A|S|N|L|E|U|T|R|H|R| 560
QY 1885 ATTCATCTTGGCTGTCAATGAGCTTCACTTCAAGATTCACAGATATGATTACGGCT 1944
DB 561 I|L|E|A|S|E|R|T|R|P|H|E|S|E|R|T|R|P|H|E|U|G|I|U|Y|R|P|H|E|S|E|R|I|L|E|R|O|A|R|G|I|Y|R|I|P|H|E|R|A| 580
QY 1945 TTGACAGATTAAGATTTTGGAGCAAACTCTGCCAGAGACTCATGACAGAGAAC 2004
DB 581 L|E|U|G|I|H|I|S|A|S|N|I|U|P|H|E|U|G|I|U|A|S|N|P|H|E|C|Y|P|R|O|G|I|U|L|E|U|S|N|A|I|A|H|R|G|I|A|S|N| 600
QY 2005 AATCTGTGTAATGACATGATGATGAGGAAATATTTGGTAAAGCAGGACATCAT 2064
DB 601 A|S|P|R|O|C|Y|S|A|S|N|Y|R|A|I|H|R|C|Y|S|H|R|G|I|U|G|I|U|T|Y|R|E|U|V|A|I|S|G|I|N|G|I|U|L|E|A|S|P| 620
QY 2065 CTCTACCTCGGAGCTTGTGAAAGATCAGCTGGCTTGTGATGATGATTTCT 2124
DB 621 L|E|U|S|R|P|R|O|T|R|P|G|I|U|L|E|U|R|Y|S|A|S|N|H|S|V|A|L|A|L|E|U|A|L|C|Y|S|E|R|I|L|E|V|A|I|L|E|P|H|E| 640

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QY 2125 CTCACAAATGCTTACTGTAATTTGTTATTTCTTAAAAATATTTCT 2169
DB 641 L|E|U|T|H|I|L|A|L|A|T|Y|R|E|U|L|E|U|S|P|H|E|U|L|Y|S|Y|R|S|E|R| 655

RESULT 2
US-09-245-808-1
Sequence: 1, Application US/09245808
Patent No. 6313277
GENERAL INFORMATION:
APPLICANT: Doyle, L. Austin
APPLICANT: Abruzzo, Lynne V.
APPLICANT: Roses, Douglas D.
TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
FILE REFERENCE: encodes it
FILE REFERENCE: Rose UMD conversion
CURRENT APPLICATION NUMBER: US/09/245,808
CURRENT FILING DATE: 1999-02-05
EARLIER APPLICATION NUMBER: 60/073763
EARLIER FILING DATE: 1998-02-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patent Ver. 2.0
SEQ ID NO 1
LENGTH: 655
TYPE: PRT
ORGANISM: Human MCF-7/AdrVp cells
US-09-245-808-1

Alignment Scores:
Pred. No.: 0
Score: 52.50
Percent Similarity: 36.72%
Best Local Similarity: 18.64%
Query Match: 1.11%
Gaps: 6

US-09-866-866A-9 (1-2719) x US-09-245-808-1 (1-655)
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QY 599 CCAATCAACATCANTCTGTACACGTAACCGAATTCATTTGAATTGACAGGTCCG 540
DB 149 A|L|A|T|R|H|R|E|T|R|H|R|A|S|N|H|S|G|I|U|S|A|S|N|G|I|U|R|I|L|E|S|N|R|G|I|U|L|E|U|V|A|I|L|E|G|I|N|L|E|U| 168
QY 539 GGTGCTCATTTATACAGACATCTCCAGATATCACTTGGATCTTCTTGACGCTAAG 480
DB 169 G|I|Y|L|E|U|S|P|L|Y|S|V|A|L|-----A|A|S|P|S|E|R|Y|S|V|A|G|I|Y|R|H|G|I|N|P|H|E|I|L|E|R|G|I| 185
QY 479 ACATCTAATAAGAAAGATTGCTCCACTGTGGGTCACAGATGGCGTTGACACAGGT 420
DB 186 V|A|S|E|R|G|I|U|G|I|U|A|G|Y|S|A|R|G|T|H|R|S|E|R|I|L|E|G|I|W|E|T|G|I|U|L|E|U|I|L|E|T|R|A|S|P|R|O|S|E|R| 205
QY 419 TTCAATG-----ATCCCA 408
DB 206 I|L|E|U|P|H|E|U|S|A|P|G|I|U|P|R|O|T|R|H|R|G|I|U|L|E|U|S|S|E|R|S|E|R|T|R|A|A|S|N|A|L|A|V|A|L|E|U| 225
QY 407 TTGATTTGCAATATATTTCTTCTCAACTGTTTCCAGAGTGGTGAAGCACTCTTC 348
DB 226 L|E|U|E|U|L|E|U|S|A|S|G|W|E|T|S|E|-----L|Y|S|I|N|G|I|U|A|R|G|T|R|I|L|E|I|L|E|P|H|E| 240
QY 347 AGTTTACTGATGATGAGATGTTATGAAAATTAAACAGACTCTTCAGTAAATGCCTTC 288
DB 241 S|E|R|I|L|E|H|S|G|I|N|-----P|R|O|A|R|G|I|Y|R|S|E|R|I|L|E|P|H|E| 260
QY 287 AGG-----TATTGAAACTGTGCGGGAAGCATTTGATGTTT-----CCTGT 243
DB 251 L|Y|S|L|E|U|P|H|E|A|S|P|S|E|R|L|E|U|R|T|R|L|E|U|A|L|S|E|R|G|I|Y|R|A|R|G|I|U|W|E|T|P|H|E|I|S|G|I|Y|R|O|A| 270
QY 242 GACACTGGGATAAA-AACTTCGACATTAATGAGAGAAAGATCATGAGAGATT 193
DB 271 G|I|N|G|I|U|A|L|E|U|G|I|Y|R|P|H|E|G|I|U|S|R|A|L|A|G|I|Y|R|H|I|S|C|Y|S|G|I|U|A|L|A|T|Y|R| 287

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Tue Mar 9 14:53:12 2004

Search completed: March 9, 2004, 14:52:43
Job time : 4 secs

compared

GenCore version 5.1.6
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OM protein - nucleic search, using frame_plus_p2n model

Run on: March 9, 2004, 14:51:09 ; Search time 1 Seconds

(without alignments)
3.168 Million cell updates/sec

Title: ~~US-09-866-866A-10~~
Perfect score: 3350
Sequence: 1 MSSSNEVEIPVSGNTNGF.....MIVFLITAIYKLPLFKYS 655

Scoring table: BLOSUM62
Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 1 seqs, 2418 residues

Total number of hits satisfying chosen parameters: 2

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Command line parameters:
-MODEL=frame+ p2n.model -DEV=soft -Q=US09866866A.pep -DB=6313277.seq
-SUFFIX=pro -OUT=compare3 -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits
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-THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTEXT=pro
-NOM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000 -NCPU=6 -NO_XUPXT
-NEG SCORES=0 -LONGLOG -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
-YAPOP=10 -YAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : 6313277.seq*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3331	99.4	2418	1	US-09-245-808-2
2	52.5	1.6	2418	1	US-09-245-808-2

ALIGNMENTS

RESULT 1
US-09-245-808-2
Sequence 2, Application US/09245808
Patent No. 6313277
GENERAL INFORMATION:
APPLICANT: Doyle, L. Austin
APPLICANT: Abruzzo, Dymne V.
APPLICANT: Rose, Douglas D.
TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
FILE OF INVENTION: encodes it
FILE REFERENCE: Rose UMB conversion
CURRENT APPLICATION NUMBER: US/09/245,808
CURRENT FILING DATE: 1999-02-05
EARLIER APPLICATION NUMBER: 60/073763
EARLIER FILING DATE: 1998-02-05

; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 2418
; TYPE: DNA
; ORGANISM: Human MCF-7/AdrVp cells
US-09-245-808-2

Alignment Scores:

Pred. No.:	Score:	Length:	Matches:	Conservative:	Mismatches:	Indels:	Gaps:
0	3331.00	2418	651	1	3	0	0
Percent Similarity:	99.54%						
Best Local Similarity:	99.39%						
Query Match:	99.43%						

US-09-866-866A-10 (1-655) x US-09-245-808-2 (1-2418)

QY	1	MetSerSerSerAenValGluValPheIleProValSerGlnGlyAenThrAsnGlyPhe	20
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QY	21	ProIaThrValSerAenAspLeuValAphetheThiGlnGlyAlaValLeuSerPheHis	40
DB	299	CCCGACAGCTTCATGCAATGACCTGACGCAATTCATGACGAGCTGTGTTAAGTTTCAT	358
QY	41	AsnIleCysIleValGlyValLeuValSerGlyPheLeuProCysArgIleProValGlu	60
DB	359	AACATCTGCTATCAGATGAAACTGAGAGTGGCTTTTACCTGTCCAAACACGTTGAG	418
QY	61	LysGlnIleLeuSerAenIleAsnGlyIleLeuValProGlyLeuAsnAlaIleLeuGly	80
DB	419	AAAGAAATATATGAAATATCAATGAGATCAAGAACCTGCTCAACCCATCTGCGA	478
QY	81	ProThrGlyGlyGlyLysSerSerLeuLeuAspValLeuAlaIaArgLysAspProSer	100
DB	479	CCACAGGTGAGGCAAAATCTCTGTTATGATCTTACGTGCAAGAAAGATCCAACT	538
QY	101	GlyLeuSerGlyAspValLeuIleAsnGlyAlaProArgProAlaIaenPheLysCysAsn	120
DB	539	GGATATCTGAGATGTTCTGATTAATGAGACACCGACCTGCCAATTCATCAATGTAAT	598
QY	121	SerGlyIleValValGlnAspAspValValMetGlyThrLeuThrValArgGluAsnLeu	140
DB	599	TCAGTTTCAGGTCGAGACAGATGATGTTGATGAGCACTGACAGGTGAGGAAACTTA	658
QY	141	GlnPheSerAlaIaLeuArgLeuAlaThrMetThrAenHisGlnLysAsnGluArg	160
DB	659	CAGTTTCAGACGCTCTTCGCTTCGACCAACATATGACGAAATCGAAAAAAGAACGG	718
QY	161	IleAenArgValIleGlnGluLeuGlyLeuAspLysValAlaAspSerLysValGlyThr	180
DB	719	ATTAAACAGGTCATTCAGAGCTTAGTGTGATTAAGTCAGACTCCAACTGGAACCT	778
QY	181	GlnPheIleArgGlyValSerGlyGlyGluArgLysArgThrSerIleGlyMetGluLeu	200
DB	779	CAGTTATCCGTCGTGTCGTGAGGAAAGAAAGAGCACTAATATGATGATGAGCTT	838
QY	201	IleThrAspProSerIleLeuSerLeuAspGluProThrThrGlyLeuAspSerThr	220
DB	839	ATCAGTCATCCTTCATCTTCTTCTGATAGCTTCAACTGCTTATGACTTCAGACCA	898
QY	221	AlaAenAlaValIleLeuLeuLeuLysArgMetSerLysGlnGlyArgThrIleIlePhe	240
DB	899	GCAATGCTGCTCTTCTCTCTCTGAAAGATGCTTAAGCAGGACGACCAATCATCTTC	958
QY	241	SerIleHisGlnProArgIleSerIlePheLysLeuPheAspSerLeuThrLeuLeuAla	260
DB	959	TCATTCATTCAGCTTCGATATTCATCTTAAGTTGTTGATACCTTCACCTTATGGCC	1018
QY	261	SerGlyArgLeuMetPheHisGlyProAlaGlnGluAlaLeuGlyIlePheGluSerAla	280
DB	1019	TCAGGAACATTAATGTTCCAGGGGCTGCTCAGGAGGCTTGAGATTAATCAAGCT	1078

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QY 281 GLYTRHISCYGGLVALATYRASNANPProAlaasphepheLeuaspIleIleasnGly 300
DB 1079 GGTATTCACGTGAGAGCCCTTAATAACCTGACAGCTCTTCTTGACATCATTTATGCA 1138
QY 301 AapSerThrAlaValAlaLeuasnargGluAapPheValaThrGluIleIleGlu 320
DB 1139 GATTCACAGCTGCTGGCATTAAACAGAGAGAAAGCTTTAAAGCCAGAGATCATAGAG 1198
QY 321 ProSerLysGlnAspLysProLeuIleGluLysLeuAlaGluIleTyrValAsnSerSer 340
DB 1199 CTTCCAGACAGATATAGCCACTCATAGAAAATTAGCGGAGATTATGATCAACCTCC 1258
QY 341 PheTyrLysGluThrLysAlaGluLeuHISGlnLeuSerGlyGlyGluLysLysLys 360
DB 1259 TTCTACAAAGAGACAAAGCTGATAATTACATCACTTCCGGGGGTGAGAGAGAGAGAG 1318
QY 361 IleThrValaPheLysGluIleSerTyrThrThrSerPheCysHISGlnLeuArgTyrVal 380
DB 1319 ATCAGCGTCTTCAAGAGATCAGCTACACCACTCTTCTGTCATCACTCAGATCGCTT 1378
QY 381 SerLysArgSerPheLysAsnLeuLeuGlyAsnProGlnAlaSerIleAlaGlnIleIle 400
DB 1379 TCCAGAGCTTCATTAACAAAACCTTGCTGGGTATCCCGGAGCTCTATAGCTCAGATCAT 1438
QY 401 ValThrValaValLeuGlyLeuValIleGlyAlaIleTyrPheGlyLeuLysAsnAspSer 420
DB 1439 GTCCAGCTGTACTGGAGCTGTATAGGTCCATTACTTTGGGCTTAAATAATGATTCCT 1498
QY 421 ThrGlyIleGlnAsnArgAlaGlyValLeuPhePheLeuThrThrAsnGlnCysPheSer 440
DB 1499 ACTGGAATCCAGAACAGAGCTGGGGTCTCTTCTTCTGACACACCAACAGGTTTCCAGC 1558
QY 441 SerValSerAlaValGluLeuPheValValGluLysLysLeuPheIleHISGlnTyrIle 460
DB 1559 AGTGTTTACGCCGTGGAACTCTTTGGGTAGAGAAAGCTTTCATCATGATGATATCATC 1618
QY 461 SerGlyTyrTyrArgValSerSerTyrPheLeuGlyLysLeuLeuSerAspLeuLeuPro 480
DB 1619 ACGGATACCTACAGAGTGCATCATTTCTCTGGAAAACCTGTATGATTTATTAATCC 1678
QY 481 MetArgMetLeuProSerIleIlePheThrCysIleValTyrPheMetLeuGlyLeuLys 500
DB 1679 ATGACGATGTACCAAGATATATATTACTGATATAGGTACTTCATGATGAGATGAGAG 1738
QY 501 ProLysAlaAspAlaPhePheValMetMetPheThrLeuMetMetValAlaTyrSerAla 520
DB 1739 CCAAGGACAGATGCCCTTCTGCTATGATGATTTACCTTATGATGATGCTTATTCAGCC 1798
QY 521 SerSerMetAlaLeuAlaIleAlaIleAlaGlyInservAlaValSerValAlaThrLeuLeu 540
DB 1799 AGTTCATGAGCACTGGCCATAGACAGAGTCAAGAGTGTCTTCTGTAACAACACTTCTC 1858
QY 541 MetThrIleCysPheValaPheMetMetIlePheSerGlyLeuLeuValaAsnLeuThrThr 560
DB 1859 ATGACATCTGTTGTGTGTATGATGATTTTTCAGGCTGTGTGTCATATCTCAACACC 1918
QY 561 IleAlaSerTrpLeuSerTrpLeuGlnTyrPheSerIleProArgTyrGlyPheThrAla 580
DB 1919 ATTGACATCTTGGCTGTCAGCTTCATGATCTTCAAGATTCACAGATATGATTTTCGGCT 1978
QY 581 LeuGlnHISAsnGluPheLeuGlyAsnAsnPheCysProGlyLeuAsnAlaThrGlyAsn 600
DB 1979 TTGCACATATATGAATTTTGGAGAAAACCTTGCCAGAGACTCAATGCAACAGAAAC 2038
QY 601 AsnProCysAsnTyrAlaThrCysThrGlyGlyGluTyrLeuValIleGlnIleLysP 620
DB 2039 AATCCTTGTAACATATCAACATGATCTGCGCAGAGATATTTGTGTAAGAGCGGCACTCAT 2098
QY 621 LeuSerProTrpGlyLeuThrLysAsnHISValAlaLeuAlaCysMetIleValIlePhe 640
DB 2099 CTCTACCCCTGGGGCTTGTGAGAAATCAAGTGGCTTGGCTTGTATGATTTGTTATTTTC 2158

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QY 641 LeuThrIleAlaTyrIleuLysLeuPheLeuLysLysTyrSer 655
DB 2159 CTCACATATGCGCTACCTGAATGTTATTTCTTAAATAATATTCCT 2203

RESULT 2
US-09-245-808-2/c
Sequence 2, Application US/09245808
Patent No. 6313277
GENERAL INFORMATION:
APPLICANT: Doyle, L. Austin
APPLICANT: Abduzzio, Lynne V.
APPLICANT: Ross, Douglas D.
TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
FILE REFERENCE: Ross UMD conversion
CURRENT APPLICATION NUMBER: US/09/245, 808
EARLIER FILING DATE: 1999-02-05
EARLIER APPLICATION NUMBER: 60/073763
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 2418
TYPE: DNA
ORGANISM: Human MCF-7/AdrVp cells
US-09-245-808-2

Alignment Scores:
Pred. No.: 0 Length: 2418
Score: 52.50 Matches: 33
Percent Similarity: 36.72% Conservative: 32
Best Local Similarity: 18.64% Mismatches: 73
Query Match: 1.57% Indels: 40
Gaps: 6

US-09-866-866A-10 (1-655) x US-09-245-808-2 (1-2418)
QY 129 ValValMetClyThrLeuThrValaArgGluAsnLeuGlnPheSerAlaAlaLeuArgLeu 148
DB 693 ATAGTGTTCACAGCCGGAAGAGCTGCTGAGAACTGTAACTTTCCTCACCGCAGAGTG 634
QY 149 AlaThrMetThrAsnHISGlyLysAsnGluArgIleAsnArgValIleGluGluLeu 168
DB 633 CCATCCACACATCATCTTGTACCACTGTAACCTGATTCATTGGAATTTGGAGCTCC 574
QY 169 GlyLeuAspLysVal-----AlaAspSerLysValGlyThrGlnPheIleArgGly 185
DB 573 GGTGCTCATTTATTCAGAACATCTCCAGATATCACTTGATTCCTTGACAGCTTAG 514
QY 186 ValSerGlyGlyLysArgLysArgThrSerIleGlyMetGluLeuIleThrAspProSer 205
DB 513 ACATCTATATACCAAGATTTGCTCCACCTGGGCTCCAGAGATGGCGTTGAGACCAAGGT 454
QY 206 IleLeuSerLeuAspGluProThrThrGlyLeuAspSerSerThrAlaAsnAlaValLeu 225
DB 453 TTCATG-----ATCCCA 442
QY 226 LeuLeuLeuLysArgMetSer-----LysGlnGlyArgThrIleIlePhe 240
DB 441 TTGATATCATATATATTTCTTCTCACTGCTTTGACAAAGGTAGAAAGCCACTTTC 382
QY 241 SerIleHISGln-----ProArgTyrSerIlePhe 250
DB 381 AGTTTACTGATAGACAGATGTATGAAAATTAAACAGACGCTCTTCAGTAAATGCTTTC 322
QY 251 LysLeuPheAspSerLeuThrIleLeuAlaSerGlyArgLeuMetPheHISGlyProAla 270
DB 321 AGG-----TCATGGAAGCTGTGCGGGGAAGCCATGTTGTT-----CTTGT 277
QY 271 GlnGluAlaLeuGlyTyrPheGlnSerAlaGlyTyrHISGlyGlnAlaTyr 287
DB 276 GACACTGGGATTA--AACTTCGACATTACTGGAAGACATCTGAGAGTTT 227

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Search completed: March 9, 2004, 14:51:14
Job time : 5 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 9, 2004, 14:47:57 ; Search time 1 Seconds

(without alignments)
0.429 Million cell updates/sec

Title: US-09-866-866A-10

Perfect score: 3350

Sequence: 1 MSSSNVEVFIPVSGQNTNGF.....MTIVPLTAVLKLPKXYS 655

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1 seqs, 655 residues

Total number of hits satisfying chosen parameters: 1

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: 6313277.pep.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	length	DB ID	Description
1	3331	99.4	655	1	US-09-245-808-1

ALIGNMENTS

RESULT 1
US-09-245-808-1
Sequence 1, Application US/09245808
Patent No. 6313277
GENERAL INFORMATION:
APPLICANT: Doyle, L. Austin
APPLICANT: Abruzzo, Lynne V.
APPLICANT: Ross, Douglas D.
TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
FILE REFERENCE: encodes it
CURRENT APPLICATION NUMBER: US/09/245,808
CURRENT FILING DATE: 1999-02-05
EARLIER APPLICATION NUMBER: 60/073763
EARLIER FILING DATE: 1998-02-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1
LENGTH: 655
TYPE: PRT
ORGANISM: Human MCF-7/AdrVp cells
US-09-245-808-1

Query Match 99.4%; Score 3331; DB 1; Length 655;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 651; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY	1	MSSSNVEVFIPVSGQNTNGFPATVSDLKAFTEGAVLSTFNICYRYKLKSGPLPCKRPVE	60
DB	1	MSSSNVEVFIPVSGQNTNGFPATVSDLKAFTEGAVLSTFNICYRYKLKSGPLPCKRPVE	60
QY	61	KEILSNNGIMKPGLANAIGPTGGKSSLDVLAARKDPSGLSDVLINGAPPANFKCN	120
DB	61	KEILSNNGIMKPGLANAIGPTGGKSSLDVLAARKDPSGLSDVLINGAPPANFKCN	120
QY	121	SGYVQDDVMGTLITRENLOFSALRLATTMNHEKNERINRVIELGLDKVADSKVGT	180
DB	121	SGYVQDDVMGTLITRENLOFSALRLATTMNHEKNERINRVIELGLDKVADSKVGT	180
QY	181	QPIRGVSGGRRKRTSIGMELITDPSILSLDEPTTGGDSSTANAVALILKRMSSQGRITIF	240
DB	181	QPIRGVSGGRRKRTSIGMELITDPSILSLDEPTTGGDSSTANAVALILKRMSSQGRITIF	240
QY	241	SIHOPRYSITKLPDLSLTLASGRLMFGPAQELGVFESAGYCEAVNNPADPFLIING	300
DB	241	SIHOPRYSITKLPDLSLTLASGRLMFGPAQELGVFESAGYCEAVNNPADPFLIING	300
QY	301	DSTVALNREDDPFAETIEPSKODKPLIEKLAETVYNSFYKETAELHQLSGEKKK	360
DB	301	DSTVALNREDDPFAETIEPSKODKPLIEKLAETVYNSFYKETAELHQLSGEKKK	360
QY	361	ITVFEKISYTTSPFCHLRWYSKRSFKULLGNPQASINQIIVTVVLGLVIGAIYFGLKND	420
DB	361	ITVFEKISYTTSPFCHLRWYSKRSFKULLGNPQASINQIIVTVVLGLVIGAIYFGLKND	420
QY	421	TGIONRAGVLEFLITNOCFSSVSASVELFVEKKLFIEHYISGYRVSSYFLGKLSDLPL	480
DB	421	TGIONRAGVLEFLITNOCFSSVSASVELFVEKKLFIEHYISGYRVSSYFLGKLSDLPL	480
QY	481	MTMLPSIIFTCIVFMLGKPKADAFVMMFTLMVAVYSSASVALAIAAQSVSVATLL	540
DB	481	MTMLPSIIFTCIVFMLGKPKADAFVMMFTLMVAVYSSASVALAIAAQSVSVATLL	540
QY	541	MTICFVPMITFSGLLVNLITIASVLSWLOYSIPRYGFTALQHNELGONFCPLNATGN	600
DB	541	MTICFVPMITFSGLLVNLITIASVLSWLOYSIPRYGFTALQHNELGONFCPLNATGN	600
QY	601	NPCNVATCTGEEYLVKQIDLSFWGLMKHVALACMIVIFLTAAYLKLPKXYS	655
DB	601	NPCNVATCTGEEYLVKQIDLSFWGLMKHVALACMIVIFLTAAYLKLPKXYS	655

Search completed: March 9, 2004, 14:47:58
Job time: 1 secs


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QY 1081 TTCTTCTTGACATCATTAATGAGATTCACCTGCTGTGCAATTAACAGAGAGAGAC 1140
DB 1115 TTCTTCTTGACATCATTAATGAGATTCACCTGCTGTGCAATTAACAGAGAGAGAC 1174
QY 1141 TTTAAAGCCAGAGATCATAGAGCTTTCAGAGAGATTAAGCACTCATAGAAAATTA 1200
DB 1175 TTTAAAGCCAGAGATCATAGAGCTTTCAGAGAGATTAAGCACTCATAGAAAATTA 1234
QY 1201 GGGGATTTTATGATCACTCCCTCTTCAAAAGAGAGAAAAGCTGAATTAATCACTT 1260
DB 1235 GGGGATTTTATGATCACTCCCTCTTCAAAAGAGAGAAAAGCTGAATTAATCACTT 1294
QY 1261 TCCGGGGGTGAGAGAGAGAGATCAAGCTTCAAGAGATCAAGCACTCC 1320
DB 1295 TCCGGGGGTGAGAGAGAGAGATCAAGCTTCAAGAGATCAAGCACTCC 1354
QY 1321 TTCTGTCAATCAATCAGATGGGTTTCAAGGCTTCAAAAATTTGCTGGTAAATCCC 1380
DB 1355 TTCTGTCAATCAATCAGATGGGTTTCAAGGCTTCAAAAATTTGCTGGTAAATCCC 1414
QY 1381 CAGGCTCTATAGCTCAATCATTTGTCAAGTCTGACCTGGACCTGTATAGTCCATT 1440
DB 1415 CAGGCTCTATAGCTCAATCATTTGTCAAGTCTGACCTGGACCTGTATAGTCCATT 1474
QY 1441 TACTTGGGCTAAAAATGATTTCTACTGGAATCCAGAACAGAGCTGGGGTCTCTCTCC 1500
DB 1475 TACTTGGGCTAAAAATGATTTCTACTGGAATCCAGAACAGAGCTGGGGTCTCTCTCC 1534
QY 1501 CTGAGACCAACAGAGTGTTCAGAGTGTTCAGGCTGTGAACCTTTTGTGTAGAGAG 1560
DB 1535 CTGAGACCAACAGAGTGTTCAGAGTGTTCAGGCTGTGAACCTTTTGTGTAGAGAG 1594
QY 1561 AAGCTCTTCAATCAATGATGATCAAGCGGATTCAGAGTGTCAATTTCTCTTGA 1620
DB 1595 AAGCTCTTCAATCAATGATGATCAAGCGGATTCAGAGTGTCAATTTCTCTTGA 1654
QY 1621 AAGCTCTTCAATGATTTATACCCATGAGAGTGTACCAAGTATTAATTTACTGTATA 1680
DB 1655 AAGCTCTTCAATGATTTATACCCATGAGAGTGTACCAAGTATTAATTTACTGTATA 1714
QY 1681 GGTACTTCAATGATTTATGAGATTCAGAGCAAGGAGAGCTTCTTGTATGATTTACC 1740
DB 1715 GGTACTTCAATGATTTATGAGATTCAGAGCAAGGAGAGCTTCTTGTATGATTTACC 1774
QY 1741 CTATGATGATGATGATTTATGAGCAAGTGTCCATGAGCACTGAGCAAGAGTCAAGT 1800
DB 1775 CTATGATGATGATGATTTATGAGCAAGTGTCCATGAGCACTGAGCAAGAGTCAAGT 1834
QY 1801 GTGCTTTCTGTAAGCAACATTTCTCATGACATCTGTTTGTGTATGATGATTTTCA 1860
DB 1835 GTGCTTTCTGTAAGCAACATTTCTCATGACATCTGTTTGTGTATGATGATTTTCA 1894
QY 1861 GGTCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1920
DB 1895 GGTCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1954
QY 1921 ATTCAAGATGATGATTTACGGCTTTCAGATTAATGATTTTGGACAAAATCTTGC 1980
DB 1955 ATTCAAGATGATGATTTACGGCTTTCAGATTAATGATTTTGGACAAAATCTTGC 2014
QY 1981 CAGAGATCAATGCAACAGAGAAACAATCTTGTAACTATGCAACATGATCTGGAGAA 2040
DB 2015 CAGAGATCAATGCAACAGAGAAACAATCTTGTAACTATGCAACATGATCTGGAGAA 2074
QY 2041 TATTTGGTAAAGAGAGGATGATCTTCAACCTGGGGCTTGTGAGAAATCACTGGCC 2100
DB 2075 TATTTGGTAAAGAGAGGATGATCTTCAACCTGGGGCTTGTGAGAAATCACTGGCC 2134
QY 2101 TTGGCTTGTATGATTTTCTTCAATTTCTCAATTTGCTTCAATTTGTTATTTCTTAA 2160
DB 2135 TTGGCTTGTATGATTTTCTTCAATTTCTCAATTTGCTTCAATTTGTTATTTCTTAA 2194
QY 2161 AATATTTCTTAAATTTCCCTTAATTCAGATGATTTATCTCACAATAAAAAAGAGAC 2220

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DB 2195 AATATTTCTTAAATTTCCCTTAATTCAGATGATTTATCTCACAATAAAAAAGAGAC 2254
QY 2221 TTTGATTTGAAGTATTCATCAAGTTTTTTTTGTGTTTCTGTTCCCTTGCATCACTG 2280
DB 2255 TTTGATTTGAAGTATTCATCAAGTTTTTTTTGTGTTTCTGTTCCCTTGCATCACTG 2314
QY 2281 TTGACAGAGCAATGTTTAAAGAGATACATTTTGAATTCACAAACAATGATTA 2340
DB 2315 TTGACAGAGCAATGTTTAAAGAGATACATTTTGAATTCACAAACAATGATTA 2374
QY 2341 AACATGAAAAGAACCAAGACATCATGATCGC 2372
DB 2375 AACATGAAAAGAACCAAGACATCATGATCGC 2406

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RESULT 2
 US-09-245-808-2/c
 ; Sequence 2, Application US/09245808
 ; Patent No. 6313277
 ; GENERAL INFORMATION:
 ; APPLICANT: Doyle, L. Austin
 ; APPLICANT: Abnuzzo, Lynne V.
 ; APPLICANT: Ross, Douglas D.
 ; TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
 ; FILE REFERENCE: encodes it
 ; CURRENT APPLICATION NUMBER: US/09/245,808
 ; EARLIER FILING DATE: 1999-02-05
 ; EARLIER APPLICATION NUMBER: 60/073763
 ; EARLIER FILING DATE: 1998-02-05
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 2
 ; LENGTH: 2418
 ; TYPE: DNA
 ; ORGANISM: Human MCF-7/Adrtp cells
 US-09-245-808-2

Query Match 1.1%; Score 30.4; DB 1; Length 2418;
 Best Local Similarity 47.8%; Pred. No. 0;
 Matches 88; Conservative 0; Mismatches 96; Indels 0; Gaps 0;
 QY 923 TCTCATTCATGAGCTTCATATTCATTTCAAGTTTGTATAGCTTCACTTAATGG 982
 DB 1140 TCTCATTCATGATGTCAGAGAGAGTCTGCAAGGTTATTAAGCTTCAAGTATTA 1081
 QY 983 CCTCAGAGAGCTTATGTTCCAGGGGCTGTCAGAGGCTTGGATCTTTGAATCAG 1042
 DB 1080 CCAGCTGATTCAGAGTATCCAGAGGCTCTCTAGAGAGGCTTGAACATTAAGTCTTCT 1021
 QY 1043 CTGATATCACTGTAGAGCTTATATTAACCTGACACTTCTTGTGACATTAATG 1102
 DB 1020 GAGGCCAATAGGTAGGCTATCAACAATCTTAAGATGATATGAGGCTGATATG 961
 QY 1103 GAGA 1106
 DB 960 GAGA 957

Search completed: March 9, 2004, 14:49:41
 Job time: 4 secs